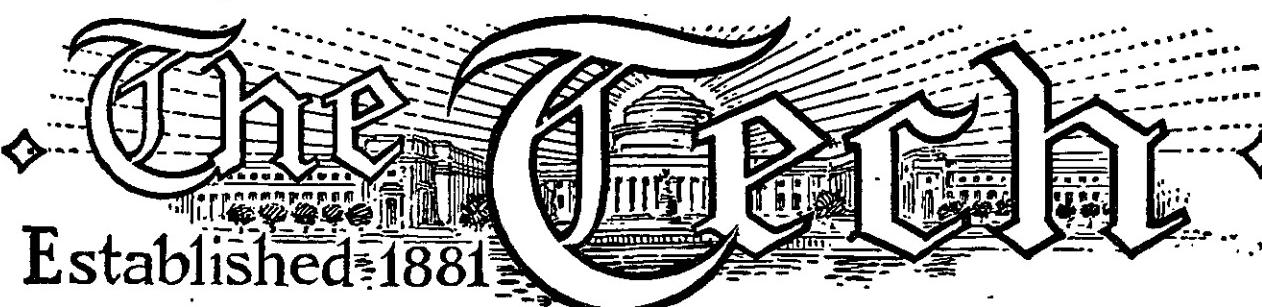


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of Technology



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for 35 Years

Vol. 37. No. 33

CAMBRIDGE, MASS., FRIDAY, AUGUST 3, 1917

Price Three Cents

STATE WOULD CUT OFF PRIVATE INSTITUTIONS

Curtis-Lomasney Constitutional
Amendment Will Prohibit
Granting Financial Aid to
Privately Owned Schools

MAY EFFECT INSTITUTE'S GRANT

Before the convention called to revise the constitution of Massachusetts is the Curtis-Lomasney amendment, which will prohibit the granting of financial aid to institutions of learning under private control. Should this amendment be accepted it might be possible for the State to discontinue payment of the funds to the institute in view of which she has granted scholarships each year. Here is what the Boston Transcript thinks about it:

Simple justice points out the course which the state should take toward the Massachusetts Institute of Technology. If the Curtis-Lomasney amendment receives the final support it deserves, then the commonwealth will indeed have declared against the grant of financial aid to institutions under private control. In common fairness, however, this declaration of 1917 cannot be al-

(Continued on Page 2.)

WILL KEEP UP SPORTS

N. C. A. A. Decides to Retain
Athletics During War

WASHINGTON, Aug. 2—Retention of college athletics during the war was decided on by the National Collegiate Athletic Association at a conference here today after Secretary Baker had declared in an address to the delegates that competitive sports should "be continued to equip young men for the reception of military training."

Nearly all the eastern colleges and many from the middle West and the coast were represented, and it was said afterward the decision meant that with the exception of Yale, Harvard, Princeton and possibly Virginia, all the larger institutions will play intercollegiate football this fall. Abandonment of the sport by the institutions named was ascribed to lack of material, most members of last year's squads now being in some branch of the military service. Both Princeton and Harvard have indicated that they will be represented in freshman football this fall.

"There is one great criticism of college athletics," Mr. Baker told the delegates. "The big, strong, husky men are made specialized athletes while the anaemic and studious and unathletically-inclined are left to fill the bleachers. Star teams and specialized athletes, while good and valuable in their way, are not numerous enough to make armies. The gospel of college athletics should be athletics for all."

The conference adopted the following resolutions:

"Whereas, college athletics, as stated by Secretary Baker in his address to the conference, are of great use in developing the qualities of a good soldier:

"Resolved, that we recommend to the colleges that the program of athletic sports for the coming year be continued, with increased efforts to develop athletics for all students rather than for a chosen few, and that the schedule of intercollegiate sports be carried out as far as local conditions allow, care being taken not to interfere with the military training of the students or to conflict with the military interests of the nation;

"That we recommend that there be no pre-season coaching during the coming academic year;

"That training tables be given up; "That professional coaching and other expenses incidental thereto be reduced to a minimum; that the number of officials at intercollegiate games and their fees be kept as low as possible;

"That the association reiterates its belief in the eligibility rules which it has already endorsed, including the freshman rule, and recommends that there be no lowering of eligibility standards because of existing conditions."

What Stevens Found Out About The Draft

The following is a letter sent to all the undergraduates of Stevens Institute, Hoboken, New York, by its president, Alex. C. Humphreys, and is a copy of the reply received in answer to the query as to how technical school men of draftable age would be treated in the National lottery:

DEPARTMENT OF THE INTERIOR
Bureau of Education
Washington

My dear Sir:

The successful prosecution of the war depends in large degree on the services of scientific and technical experts. It is of the utmost importance that the supply of men who have had advanced technical training should not be cut off more than is necessary. In view of this fact, the War Department believes that students in technical schools and colleges who are within the age limits of the selective draft should be treated in the same manner as the workers in the industries which are devoted to the manufacture of war materials. Under this ruling, the presidents of colleges and technical schools may properly urge the district exemption boards to exempt students in their institutions who give promise of special aptitude for the technical and scientific professions until these students have finished their courses. It is expected that institutional officers will exercise due caution and will not claim exemption for students whose success in technical careers is open to doubt.

It should be clearly understood that each case is to be considered by the district exemption boards on its own merits. Students in technical schools are in no wise exempt as a class. No classes of persons are exempt from the operation of the selective draft except those specified in the act.

I am bringing this matter to your attention with the authorization of the Secretary of War. The importance of it is emphasized by the enclosed sheet, indicating the small number of available engineers in the country at the present time.

Yours sincerely,
(Signed) P. P. CLAXTON, Commissioner.

RESERVE OFFICERS MAY OUTRANK WEST POINT MEN

Army Captains May be Side Tracked by
Reserve Majors

PLATTSBURG, N. Y., Aug. 2—Unless the war department provides for more experienced officers in the regiments of the national army, hundreds of regular army captains with long service and many campaigns will be outranked and sidetracked for promotion by reserve corps majors fresh from civilian life with but three months' instruction. It was stated today that only two officers in the regular army will be commissioned in any regiment of the national army, with the exception of general officers. The remaining commissions will be filled from the reserve officers' training camps. Five generals to a division, or a total of 80, will be commissioned from the regular army. For the two officers in each of the 208 regiments in the national army, 416 regular officers will be taken. Out of the 10,000 officers in the first increment of the national army, then, but 500 will come from the regular army.

According to the May, 1917, army list, there are 556 colonels, lieutenant-colonels and majors in the cavalry, field artillery and infantry branches of the regular army. They have the precedence for appointment in the national army. The number of captains in the same branches of the service is 1351. Since the last army list was issued in May, however, the number of captains has almost doubled. This means that after the places of the higher regular army officers sent to the national army have been filled, at least 1500 captains will not be advanced and that they would be outranked by majors from the reserve corps. The present situation makes it possible for a civilian with three months' training and no army experience to be commissioned a major and to be eligible to promotion before regular army captains, who in some cases have had four years' instruction at the military academy, followed by seven to 18 years' service in the army.

Members of officers training camps who do not receive commissions are wanted in the national army as non-commissioned officers, according to a telegram from the war department, copies of which are posted on company bulletin boards. The new army will require 30,000 non-commissioned officers.

"That the association reiterates its belief in the eligibility rules which it has already endorsed, including the freshman rule, and recommends that there be no lowering of eligibility standards because of existing conditions."

START NEW WAR COURSE

School For Coast Artillerists at
Fort Monroe

An "emergency course" will be started August 15 in the department of enlisted specialists at the Coast Artillery school at Fort Monroe, Va. Only especially qualified men are admitted, and from the course will be turned out men technically trained in electrical engineering, mathematical and other work, which the Coast Artillery Corps has to do. Most of these men will be assigned to coast defenses of the United States, but some will be sent with each contingent of troops which goes to France to act as consulting experts in construction and operation work assigned to artillery.

The maximum number of students who can be taken into the course is 110 in the electrical course, 70 in the clerical course, and 50 in the artillery course. A new radio class can not be admitted until about December 1. Applications for admission are made through the department commanders, and co-operation by the newspapers and other agencies has brought in nearly as many applicants as can be accepted. Some places, however, remain to be filled.

The artillery school for officers is also located at Fort Monroe and has about 1200 men under training, of whom about half will be graduated in August. During the week of August, these officers will engage in heavy gun target practice.

CANTONMENTS TO BE RUSHED.

5 Per Cent of Material on Hand,
Baker Announces.

WASHINGTON, July 31.—Fears of some officials that delay in obtaining materials and sufficient labor for National Army cantonments would postpone the mobilization long past September 1 were dissipated today by an announcement by Secretary Baker that 78 per cent of the cantonment materials are now on the ground, and that reports indicate everything will be in readiness, or nearly so, in another month.

No definite date for mobilization was ever fixed, but Secretary Baker has indicated that every effort would be made to effect it about September 1.

ARMY CANTONMENTS WILL BE READY WHEN SOLDIERS NEED THEM

Engineering Resources of Country Summoned to
Complete Camps For Occupancy by
Draft Army Sept. 1

SETTLEMENTS COST NEARLY \$80,000,000

MORE than 30 cantonments for soldiers of the new national army and national guard are to be completed by the time drafted men can be examined, sworn in, uniformed and transported to these concentration camps.

The hastily brought together organization, which undertook the work under the direction of Col. Isaac W. Littell, has made good on the job. When the 32 cantonments are finished and furnished they will have cost between \$55,000,000 and \$80,000,000. The magnitude of this can be better understood when it is remembered that the largest amount appropriated for the Panama Canal in any year was \$45,000,000.

Five of the engineers chosen for the work on the sixteen cantonments are Technology men. They are as follows:

Walter E. Spear '97, Engineer of cantonment for 2nd National Army, at Yaphank, Long Island, N. Y.

Allen Hazen '88, Engineer of cantonment for 4th National Army, at Wrightstown, N. J.

Morris Knowles '91, Engineer of cantonment for 8th National Army, at Annapolis Junction, Md.

R. Winthrop Pratt '98, Engineer of cantonment for 10th National Army, at Chillicothe, Ohio.

William J. Roberts '91, Engineer of cantonment for 16th National Army, of American Lake, Wash.

Buy in Great Quantities

Buying one stove or a dozen stoves isn't a hard job. Buying 5,000 stoves is something else again. Neither is it hard to buy one or a dozen refrigerators for a private household. But this emergency organization has as an item the purchase of \$500,000 worth of ice boxes.

Factories are working overtime in supplying the things necessary before the cantonments can be complete. The country has been combed for men. An assistant to the president of a big railroad sits in the office of the organization and plans the movements of long train loads of building supplies in every part of the country.

The hauls must be as short as possible. The cantonment builder in Texas must get his supplies as near home as possible, even though he might get a better quotation in South Carolina. It is the business of the organization in Washington to co-ordinate this work as much as possible, and at the same time see to it that the government is not gouged.

On the Job All the Time

One cantonment is as important as the other. An alert builder might get his supplies quickly. Some builder, who is not so wide awake, might fail. So the organization here must be on the job all the time to see that the work progresses with equal speed at every place.

The organization is certain it has the work well enough in hand to guarantee it will be finished on time. Whenever an order has come from the War Department to finish a piece of construction in an unprecedented short time, the reply usually has been:

"It never has been done before, it can't be done, but it will be done."

Yet this enormous sum for cantonments has been expended in three months. And within that time the organization which has spent the money has been built up. Starting with three men and a stenographer, the cantonment building organization now occupies one entire office building and part of another.

Many of the brainiest engineers and constructionists in the country are engaged in the work. They are spending from 14 to 18 hours a day at it and they daily wear out two shifts of stenographers.

(Continued on Page 2.)

GOVERNMENT HEALTH CHIEFS DISCUSS SANITATION WORK

The Council of National Defense authorizes the following:

A general symposium on sanitation problems affecting not only the army and navy but the public health as well was conducted yesterday by the general medical board of the Council of National Defense. Papers were read by Col. Edward L. Munson appointed by

the surgeon general of the army to have charge of sanitation in training camps and by Col. Frederick P. Reynolds, also of the army medical service.

Surgeons Richmond C. Holcomb and Earle Phelps, former professors at the Institute, spoke on the organization of the navy health service. Surgeons General Gorgas and Braisted were both present and Admiral Braisted spoke briefly on the new problems of sanitation facing the navy. Assistant Surgeon General Rucker, of the Public Health Service, read a report on the work being done to take care of sanitation problems in the districts in the

TO COMMISSION 3500

Plattsburg Recommendations:
Sent to Washington

PLATTSBURG, N. Y., July 31.—The recommendations of Colonel Wolf and the regimental commanders affecting the training candidates have gone from here—two trunks full of official papers, each in charge of a regimental adjutant—and will be presented at the War Department late tomorrow. The adjutants, Captains F. W. Manly and J. W. Wainwright, will remain in Washington until the signed commissions, which are supposed to number 3450, or maybe 50 more than that, have been returned to them. It is expected this will be done this week.

Not a man in camp beyond the three senior officers knows who has and who has not been commissioned. No announcement will be made until the close of the camp, but it is understood that Colonel Wolf will at once begin discharging some of those that are to go.

It is expected that a large number of men who either have to take a discharge or go in the aviation service will select the latter course.

With the thermometer hanging around 104 degrees during the early part of the afternoon the regimental commanders decided to call off all severe work. Every man was ordered into a bathing suit and marched to the beach of Lake Champlain, bordering the camp, and told to jump in.

Tonight the two regiments had battalion combat drills three or four miles outside the limits of the camp. Farmers and gardeners complained that on the previous night considerable damage was done to crops and flower beds by similar maneuvers.

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The Editor-in-Chief is always responsible for the opinions expressed in the editorial columns, and the Managing Editor for the matter which appears in the news columns.

FRIDAY, AUGUST 3, 1917

WHERE DOES DUTY LIE?

THE problem which confronts the young man of today is indeed a difficult one to solve. Where does his duty lie in regard to the war? Should he enlist at once in some branch of the service or wait until he is called by the draft? Should he seek to gain for himself the position where he can do his part with the least risk or should he feel that he must recklessly dash in where the fighting is fiercest and his chances for living are slightest? Can the young man with technical training seek to utilize that training in industrial work where his personal risk will be small, without feeling that he is pursuing a selfish course? Should the man with dependents,—parents, wives, children—think first of their comfort and welfare, or should he sacrifice everything he holds dear upon the altar of duty, leaving them perhaps to endure the hardship of unaccustomed want?

These are a few of the questions which arise in the minds of young men of this generation, and each man must furnish a solution for his particular case. The seriousness of the emergency demands earnest thought and it will be strange indeed if out of the curse of war there does not arise the blessing of a quickening of the national consciousness of duty, which will result in a more thoughtful and less frivolous people. Mistakes will be made, and the weakness for self-preservation will be manifested, but the very fact that ten million young men are giving serious consideration to the finding of their own duty, and are in most cases forgetting self interest, cannot but lead to a great strengthening of the character of American manhood.

ARMY CAMPS WILL BE READY WHEN SOLDIERS NEED THEM

(Continued from Page 1.)

phers and clerks. These engineers and constructionists are men who left important jobs and came to Washington at the government's call.

They brought with them a determination that they would not fail in the big order they had to fill. They reasoned that if the cantonments were not completed in a remarkably short time there would be a cry that Washington had again fallen down in an emergency.

Col. Little and Capt. Richard C. Parker, who started the work, realized that there must be as little red tape in the cantonment building as possible, that they must do their work just as a great corporation would do a big amount of constructing.

Had to Work Quickly

An organization had to be built which would act quickly. Had there been more time the government might have offered to try out men who would fail awhile before they started to succeed. But as it was each man called to Washington had to pick up his job and go to work on it at once.

On this Sunday there are between 10,000 and 11,000 freight cars being moved toward the cantonment grounds. At Petersburg, Va., where the District conscript troops are to be trained, more than 6,000 men are building the barracks to house 40,000 men and installing a light and water plant of a magnitude sufficient to supply a town the size of Cumberland, Md. Eleven million feet of lumber are going into the buildings.

Petersburg will be the first camp completed. For all practical purposes it will be ready before September 1, although work on hospitals and horse and vehicle buildings will take some time longer.

ERRATUM

According to an article which appeared recently in The Tech, Professor Nettleton of Yale, was named as an Institute alumnus. He is not, being a graduate of Sheffield Scientific School.

STATE WOULD CUT OFF PRIVATE INSTITUTIONS

(Continued from Page 1.)

laxed to vitiate any obligation previously and expressly assumed by the State. By an act of the General Court in 1911, the commonwealth agreed to give the Institute of Technology \$100,000 a year for a term of 10 years, beginning with 1912 and extending through 1921. In view of this grant, the state took the right to establish 80 free scholarships at the school. In view of this grant the institute proceeded to raise money from benefactors throughout the Union which, together with the state's funds, would enable it to carry out the great new development that has been brought to pass on the Cambridge shore of the Charles. The terms of the act of 1911 made the continuance of the grant for the last five years of the agreement contingent upon the institute's showing of proof that at least \$1,000,000 of new endowment had been so raised by private subscription. This proof was offered. The friends of Technology had fully manifested their good faith. They had acted in an equal confidence in the good faith of the commonwealth of Massachusetts.

Under circumstances such as these it would be preposterous to rest the present duty of the commonwealth on any technical question as to whether the agreement made by the state amounted to a legally binding "contract." The moral bonds of this contract are too certain and clear to require adjudication. The full performance of the state's promise will be their

only proper discharge. This is not to say that the Institute of Technology should be ultimately exempt from the provisions of the Curtis-Lomasney amendment. The proposed change in our constitution looks towards good ends, and if the Massachusetts Institute of Technology must ultimately bear a loss from its terms, it should cheerfully bear the sacrifice for the sake of the greater fairness in the distribution of public funds which the amendment's passage will secure. But the school should not now be denied the faithful performance of a public promise on which much of the institute's present financial arrangements depend. The Massachusetts Institute of Technology has done too much for the commonwealth to be treated shabbily now. Whatever guarantees it is necessary to offer, assuring that the Curtis-Lomasney amendment will not do injustice to the institute, should promptly be offered.

MANY APPLY FOR CAMPS

72,914 Seek Places Allotted to 15,904 for Officers' Training

WASHINGTON, July 30.—Over four times as many applications for the second series of officers' training camps have been received from New York State as the quota for these camps allotted to that State. The quota for the State is 1,686 men. As approximately 16,000 men will enter the second series of camps from the whole country the New York State quota is about one-tenth of the total number to be trained.

The number of applications from New York State for these camps is 6,843. Out of the total of 6,843 applying personal examinations have been made 6,058.

From the first twenty-six Congressional districts of New York there were 3,893 applicants, of whom 2,916 were personally examined. These are the districts that include New York City. As the quota for these twenty-six districts was 972 the applicants were 401 per cent. of the quota.

For the whole country the quota was 15,904, but the total applications were 72,914, or 450 per cent. higher than the quota. The applications for the second series of camps were far in excess of the Government's application. The camps will open Aug. 27, and close Nov. 26.



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Some of the Men at Institute Training to be Ensigns

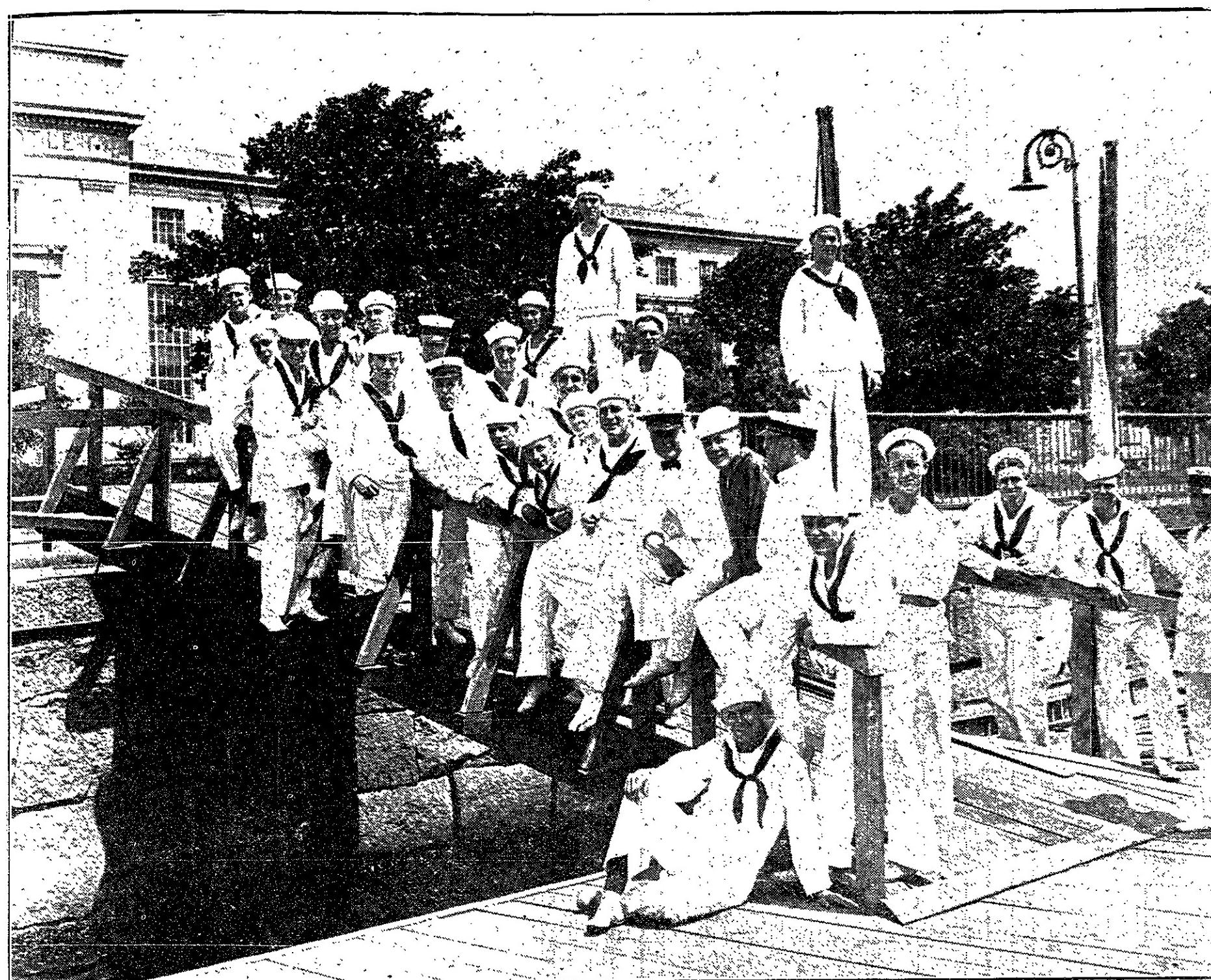


Photo by International Film Service

A FEW of the sixty cadets of the Naval Reserve School. A four months' course in navigation, seamanship, gunnery, and other studies similar to those given at Annapolis will fit these men for ensigns' commissions in the reserve. Daily calisthenics have prepared the men for the rugged life aboard a man-of-war.

CREATE DIVISION TO KEEP SOLDIERS IN TOUCH WITH HOME

A plan to enable friends and relatives of soldiers in France to get information as to their welfare as promptly as possible has been prepared by the adjutant general's office. Collecting this data will require for an army of a million men about 1,200 officers, enlisted men, and field clerks, who will be organized and stationed down through general, divisional and regimental headquarters and with each organization unit of the forces in France. The service will also extend into the field and base hospitals, to ports of embarkation, and to the camps in this country where the troops are mobilized and trained. Special training is to be given to fit individuals for this work.

The statistical division will operate through a main office in Washington and through the organization abroad with sections assigned to each unit of the army down to each company. This will mean that every company of soldiers will be accompanied by one or more men who are regularly stationed with it and part of whose job it will be to know the men of the company. This man will report to the regional statistical division which will be specially charged with the preparation and forwarding of casualty lists and data as to wounded and seriously ill. Information will likewise be reported as to all civilians accredited with the army. The central division in Washington will keep in touch with all the camps in the United States, both of the National Guard and the National Army, and with the regular establishment of the army, in order that it may answer inquiries about any man attached to any unit of the army of the United States.

WOOD AS A MATERIAL WILL PLAY IMPORTANT PART IN WAR

Lumbermen Co-Operating With Government Departments.

ITHACA, N. Y., July 2.—"When the fight for democracy is won, no little credit for the victory will be due to the forest resources of America," said R. S. Kellogg, secretary of the National Lumber Manufacturers' Association, in an address before the summer school of Cornell University. "The timber of



Photo by International Film Service

ONE of the naval cutters in the Charles River Basin. The historic River Charles furnishes the men an opportunity to get practice in practical seamanship. On calm days the cadets get their exercise at the oars.

the New World is contributing directly and powerfully to the final defeat and vanquishment of the last remaining military despotism of the Old World. This may sound like an extreme state-

ment, but is justified by a survey of the situation. Here are some of the outstanding features:

"This war is going to be won in the air. The program now going through

ALUMNUS VISIT INSTITUTE

W. C. Dickinson '70 visited the Institute last Monday and asked to have his name registered as coming to visit the new buildings. He is a flour expert and a member of the firm of F. W. Goeke and Company of St. Louis. Mr. Dickinson was accompanied by a guest, L. C. Breed, a well known writer for the press, who is now with Dowst Brothers Company, of Chicago.

USE GERMAN SEXTANT TO TEACH U. S. SAILORS

Henry Howard, director of recruiting for the United States Shipping Board, received a sextant sent by John Tower of Cleveland, Ohio, to use in teaching students in the free training school the art of seamanship.

It was stamped: "Made in Germany Bremerhaven," and indicated that German made product will aid American youths to beat the Germans in France.

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Ordnance Foreman	Puget Sound Navy Yard	\$5.52 per day
Shop Apprentice	Dept. Commerce	\$540
Asst. Insp. Cloth Equipment	Ordnance	\$960-\$1,500
Asst. Insp. Leather	Ordnance	\$1,200-\$1,500
Asst. Insp. Small Hardware	Ordnance	\$960-\$1,500
Asst. Insp. Textiles	Ordnance	\$960-\$1,500
Asst. Insp. Leather Equipment	Ordnance	\$1,200-\$1,500
Asst. Metallurgical Chemist	Ordnance	\$1,000-\$1,500
Production Expert	Signal	\$1,500
Scientific Asst. Drug- Plant Inves.	Dept. Agriculture	\$1,200
Entomological Insp.	Dept. Agriculture	\$1,400-\$1,740
Finger Print Classifier	War Dept.	\$1,000

JULY 23, 1917

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August 8	1598
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ALUMNI NOTES

WASHINGTON CORRESPONDENCE.

By Maurice R. Scharff

Executive Secretary, Technology Clubs
Associated

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Captain Leonard P. Wood '01, engineer officers reserve corps, at the camp of the American University, Washington, has been assigned to active duty at that camp.

The following men have called at this office:

Miss Reba Thompson '09.

Allen Pope '07.

H. L. Marion, Course 6, 1915.

Herbert C. Merrill, 1903, called with Mr. McIvar of Worcester Tech with regard to work in Sanitary Engineering.

I. Paris, Course 14, 1914, who is in the Patent Office at Washington called with regard to the proper procedure toward securing a commission in Ordinance.

John M. DeBell, who has recently been appointed to take charge of the work of the Washington Bureau has been delayed in arriving, and Paul C. Leonard, Acting General Manager of The Tech, is in charge of the office for a few days.

Professor Henry G. Pearson who has been in Washington for the past week getting the latest information on war questions which are of interest to Technology men, left here today for Pittsburgh, the first stop in the trip which he is taking to visit the Technology Clubs.

Edwin W. James, formerly chief of maintenance, office of public roads, has been made General Inspector of districts east of the Mississippi including five road districts, five drainage districts, and one irrigation district. His work which takes him all over the territory covered by his districts consists of building and maintaining military and post roads largely in co-operation state highway departments.

The files of the answer to the Questionnaire, prepared by the mobilization committee under Mr. Litchfield's direction, have been transferred to Washington and are installed in the office of the recently created U. S. Public Service Reserve. They will serve here as a nucleus of a catalogue which will be constantly drawn upon not only by the government, but by employers all

The War-Time Tech

TECHNOLOGY itself is giving remarkably effective war service to the Country.

THE ALUMNI in large and rapidly increasing numbers are in government or industrial work essential to war success.

THE UNDERGRADUATES are efficiently fitting themselves for similar patriotic duty.

TECHNOLOGY WOMEN are organizing to provide for men at the front and to co-operate with wives and mothers left behind.

Already Institute men are in EUROPE, and Lansing '98 has arrived and opened a Technology center in Paris.

The thousands of Technology men and the hundreds of thousands interested in the Institute should have news of all this and should have it promptly.

THEREFORE the undersigned have co-operated to render this news service by making THE TECH the organ of ALL TECHNOLOGY for the period of the war.

THE WAR TECH WILL GIVE:

NEWS straight from the live Alumni centre at Washington, in the heart of things.

NEWS from the fifty local Technology Associations all over the Country.

NEWS from the Technology centre in Paris, in touch with all those at the front.

NEWS from the Summer Camp, from Plattsburg and from all other training camps where Institute men may be.

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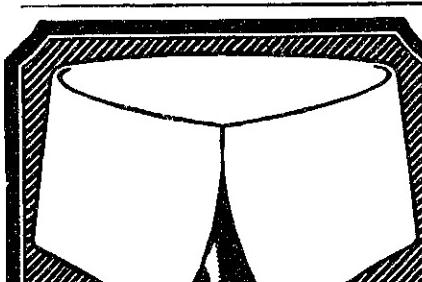
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over the country. The Public Service Reserve, which is organized under the Department of Labor, aims to do everything possible to minimize the dislocation of men consequent upon war conditions. In performing this service the Technology File will be of the greatest possible value. In view of the country-wide use to which these files will now be put, it is hardly necessary to remind the Technology men of the importance

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CAMBRIDGE, MASS., TUESDAY, AUGUST 7, 1917

Price Three Cents

FORM NEW ARTILLERY SCHOOL AT MACHIAS

Seven Men Prefer to Take Work
in Gunning Under Captain
Bland to Regular Applied
Mechanics

MOVIES ON WEDNESDAY EVENING

(Special to The Tech)
CAMP CUNNINGHAM, Technology, Me.—There has been formed at Camp Cunningham an extension of the regular artillery school. The seven men in a company enrolled in this course devote their mornings to this work, while the remainder of the company studies Applied Mechanics. With such close contact with Captain Bland these men are progressing rapidly along the lines of signalling, gun laying, ammunition, mounted and dismounted drill for artillery men, etc., and it is expected that these men will soon be able to help in the instruction of the others.

A rumor is current here that Washington has recognized Camp Cunningham as a training camp for reserve officers. Just how this fact is expected to affect future work is not known, but it makes the men even more zealous in the pursuit of their military studies than formerly.

Company, the new men, under Captain Wirt and his efficiently trained non-commissioned officers, is improving rapidly, and is pushing the other company hard to keep ahead of them.

Thursday night was celebrated here with a movie show in the drafting room. The bill read, "Educational Features, also Charlie Chaplin." There were pictures of the Panama Canal, the African Jungle, European War, How Uncle Sam Prepares for War, Wild Life in Maine (pictures taken in this very county) and Charlie Chaplin. We were grateful for Charlie, on account of the continued surfeit of education here, and many doubtless sighed for Theda Bara and excitement.

The camp orchestra had been practising for weeks and weeks, probably without expecting such an opportunity of displaying their powers, yet they played valiantly throughout the show, and added considerably to the entertainment.

NAVY RADIO SCHOOL
AT HARVARD
Offer of Facilities for Training 1,000
Students Accepted

President Lowell, of Harvard University, offered to the Secretary of the Navy the facilities of the university for the training and quartering of 1,000 students to be trained as radio operators. This offer has been accepted. The school for the past three months has been used for training the naval reserve operators for general service. On July 26 the personnel and equipment of the Navy Radio School, Navy Yard, New York, will be moved to the university. The school for electricians other than those doing radio duty for the Navy will be retained at the Navy Yard, New York.

It is expected that the complement of the Harvard school will be filled at an early date and that trained men for service at sea will be principally obtained from there. The United States Naval Radio Training School will be located at the university for the duration of the war. The school will be under naval discipline and instructors, who will have the co-operation of the university authorities.

HARVARD R. O. T. C. MEN
TO BE INCLUDED IN DRAFT

BARRE, Aug. 2.—There are in the Harvard reserve officers' training corps more than 500 men of draft age, and of this number many are included in the first call. As the government has not recognized the Harvard unit these men, after having passed their physical examination, will have to serve in the first national army. With their preliminary training, however, most of them should become non-coms, with the chance of later winning a commission.

STANDARDIZING AERO PARTS Specifications for Tension Wires Adopted by Aeronautic Experts

The aeronautical standards division of the Society of Automotive Engineers, which is co-operating with the aircraft production board of the Council of National Defense, in standardization of materials to be used in the construction of the American aircraft fleet, has adopted specifications for the tension wires to be used in building and assembling the planes. It also discussed aeronautical steel specifications.

The specifications for materials determined upon by the division, acting in co-operation with the aircraft board, will be based on the best modern practice and experience, and will be used as standard for machines for both the Army and Navy. Such a policy will, according to the division, greatly simplify the requirements to which material producers will be compelled to conform and thus promote quantity production.

The engineers present at a recent meeting included Charles M. Manly, M. W. Hanks, Spencer Heath, Thomas H. Huff '15, G. C. Leoning, H. C. Dickinson, F. W. Caldwell '99, F. G. Diffin, Karl Zimmerscine of the automotive committee of the council, Roger Chauveau, and Coker F. Clarkson.

FURTHER RULES OUT

Crowder Publishes New Details
on Exemption

The State Department issues passports to persons subject to draft only when the application is accompanied by a permit by the Provost Marshal General to leave the country. Until August 5 applications for permits will continue to be made to this office, but after that date such applications shall be made to local boards. If the board is of the opinion that the application is meritorious, it will immediately call the applicant for military service as prescribed by regulations and will examine him physically and receive claims of exemption or discharge made by or in respect of him in the local board. It will take waivers from the applicant of the periods of time prescribed by regulations for notice and for filing claims and will certify the case to the district board, by letter and not on Form 146, together with the application for permit. The district board will hear any appeal or claim for discharge that may be filed in the case, will take waivers of the periods of time prescribed by regulations for notice and for filing claims, and will make its decision with the greatest possible expedition. If the applicant is exempted or discharged, the district board will issue the permit, stating therein that the person has been exempted or discharged, and that the War Department has no objection to the issue of the passport. If the applicant is held for military service, the district board will refuse the permit unless the district board is convinced that the absence will be merely temporary, and that the applicant's order number is so far down the list that he could not be included in the present draft. If the board is so convinced, it may still issue the permit, but the board will require from the applicant a signed statement of his address while absent, and that he understands his obligations under the law and an engagement to keep himself informed of his proximity to call and to return on call by the local board. If the applicant is held for military service, the district board will not certify the case to The Adjutant General, but will return the papers to the local board, which will keep such papers in a separate file and will certify them to the district board on Form 146 when the order of call of the person so held is reached on the docket of the local board.

Permits to Go to Canada

No passport is required by the State Department to go to Canada, but persons subject to draft who attempt to cross the line are often subjected to delay while their cases are investigated. To obviate this delay permits to go to Canada temporarily may be issued in

(Continued on Page 2)

PROFESSOR PEARSON HALF WAY TO COAST

Alumni of Technology Clubs
Associated Enthusiastic Over
Talks on War Activity at the
Institute

THIRD LECTURE IN DAYTON

(Special to The Tech)
PITTSBURG, August 2.—As the second of his series of talks given before the branches of the Technology Clubs Associated Professor Pearson, head of the English Department at the Institute, delivered a lecture before the Technology Club of this city today. Besides describing the government schools at Cambridge and the military work of the students, Professor Pearson told of the work at the Washington office established last spring by the Technology Clubs Associated, and of the valuable service it has been able to render to graduates all over the country. He spoke more fully of the important tasks which Technology men have been summoned to Washington to perform for the United States Government. Finally he described the plans for the Technology Bureau in Paris and appealed to the alumni to co-operate in the effort to do everything possible for the men who go to France.

DAYTON, Ohio, August 6—Professor Pearson, head of the Department of English at the Institute delivered a lecture to the majority of the membership of the Technology Club of this city yesterday evening. His speech followed a dinner and much interest was shown by the members of the club in the workings of the government schools at the Institute. Alumni here were glad to know of the efforts of Professors Peabody, Miller and Burton, and of the service the Washington Bureau of the Technology Clubs Associated, as well as the help being given by Mrs. Edward Cunningham, donor of the Sophomore Summer Camp fund.

Professor Pearson's Itinerary

Cincinnati, Mon., Aug. 6. Hotel Sinton.
Indianapolis, Wed., Aug. 8. Hotel Indiana.
St. Louis, Fri., Aug. 10. Planter's Hotel.
Chicago, Mon., Aug. 13. La Salle.
Detroit, Wed., Aug. 15. Statler.
Cleveland, Fri., Aug. 17. Statler.
Akron, Sat., Aug. 18.
Pittsburg, Mon., Aug. 20. Fort Pitt Hotel.
Buffalo, Tues., Aug. 21. Statler.
Rochester, Thurs., Aug. 23. Seneca.

QUARTERMASTER OFFICERS TO HAVE TRAINING CAMP SOON

Purpose To Form Special and Technical
Army Branches

A Quartermaster's Corps training camp is soon to be established. About 3,200 officers from the officers' training camps now in operation will be sent to the new camp for additional training in work for the Quartermaster's Corps. The camp will also accommodate from 10,000 to 20,000 enlisted men, to be formed into Quartermaster Corps units.

A staff of instructors will be required, and assistant instructors will be drawn from non-commissioned officers already in the service.

The camp will be used for the formation of special and technical units such as motor companies, wagon companies, stevedore regiments, labor companies, supply companies, repair shops, salvage shops, etc.

The camp buildings will follow the cantonment plans with such variations as special work will call for.

Several sites are under consideration and announcement of choice will probably be made soon. A tract of something like 2,000 acres will be required.

The office of the Quartermaster General states that no applications for appointment to the Quartermaster's Reserve Corps made since April 12 are being considered. Only those sent from the officers' training camps are eligible to become student officers at the Quartermaster's Corps training camp.

WAR DEPARTMENT WILL NOT EXEMPT COLLEGE STUDENTS FROM DRAFT

Only Men Enrolled in the Ground Schools For Aviation at the Institute Will Escape the Call For the National Draft Army

WILL NOT EXCUSE MEN IN R. O. T. C. NEXT FALL

According to the latest information obtainable from the War Department, Technology men as a class will not be exempted from service in the National Draft Army. This statement is made in a letter to Mr. James P. Munroe from H. T. McCain, Adjutant General at Washington, from which the following is quoted:

"With the exception of the students already enlisted in the Army and who are at the 'Ground School,' all others undergoing military training are just as much subject to the selective draft law as any other male citizens within the age limits, and their liability to be selected is not affected in any way by receiving the military instruction given."

Whether or not college men will be exempted from the draft or detailed to finish their courses will be up to their local exemption board. According to the War Department it is of the utmost importance that the supply of men who have had advanced technical training should not be cut off more than is necessary. In view of this fact, it is the belief of the War Department that students in technical schools and colleges, who are within the age limit of the selective draft, should be treated in the same manner as the workers in industries which are devoted to the manufacture of war materials. It should be clearly understood, however, that each case is to be considered by the district exemption board on its own merits.

The following letter to James P. Munroe, secretary of the Institute Corporation, from the War Department is printed as official:

July 20, 1917.

Mr. James Phinney Munroe,
79 Summer St., Boston, Mass.

Dear Sir:

The Secretary of War has directed me to inform you, regarding the status of the men who will pursue the military courses offered at the Massachusetts Institute of Technology next fall, as follows:

There is now established at this Institute two different courses, and a third course is under contemplation. These are—(a) one of the Ground Schools of the Aviation Section of the Signal Corps; (b) military instruction, Government aided under Section 1225, Revised Statutes, as amended by Acts of Congress approved Sept. 26, 1888, Jan. 13, 1891, and Nov. 3, 1893; (c) contemplated military instruction in the Reserve Officers' Training Corps, as provided in Sections 40 to 53, inclusive, Act of Congress approved June 3, 1916.

The status of a student under (a) is that of an enlisted man in the Army. Previous to attending the Ground School they are regularly enlisted in the U. S. forces. After successfully contemplating the prescribed courses and tests at the Ground School they are commissioned as Junior Aviators with the rank of First Lieutenant.

The status of the men having military instruction under (b) is the same as any other student at the Institute. The Government has no lien on their services. The Institute, in order to receive the arms and instructor must agree to give to a certain number of students a certain amount and kind of Military instruction.

Should a unit of the Reserve Officers' Training Corps be established as noted in (c) above, the status of the men receiving instruction would be similar to other students, except that in return for agreeing to take a prescribed amount of military work under the conditions as set forth in General Orders No. 49, War Department, 1916, inclosed herewith, a student becomes entitled to commutation of a food allowance and is given a Government owned uniform. The subsistence allowance amounts to 30 cents per day for students taking the advanced course only. The proposed allowance for clothing is \$14.00 per student member per year, with \$9.79 per student member per year extra for those who elect to take the prescribed camp training.

With the exception of the students already enlisted in the Army and who are at the "Ground School," all others undergoing military training are just as much subject to the selective draft law as any other male citizens within the age limits, and their liability to be selected is not affected in any way by receiving the military instruction given.

Very respectfully,
H. T. McCAIN,
The Adjutant General.

The Tech

Established 1881

Entered as second-class matter, September 16, 1911, at the Postoffice at Boston, Mass., under the act of Congress of March 3, 1879.

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Although communications may be published unsigned if so requested, the names of the writer must in every case be submitted to the editor. The Tech assumes no responsibility, however, for the facts as stated nor for the opinions expressed.

The Editor-in-Chief is always responsible for the opinions expressed in the editorial columns, and the Managing Editor for the matter which appears in the news columns.

TUESDAY, AUGUST 7, 1917

THE growth of public interest in aviation during the last year has been remarkably swift, especially since we have entered the war. Recent articles in magazines have done much to spread among the people a knowledge of how the aeroplane works and what is being done with it in Europe. Also the fact that we are engaged in training thousands of adventurous young men to fight in the air has appealed to the imagination.

It was American inventive genius that gave the aeroplane to the world but we have been far outdistanced by the nations now a war in the development of powerful and speedy machines. It is said that we have not a single plane in this country now which would be fit for service abroad, so rapid have improvements been made under the stress of the fierce competition on the battle front.

But it is up to America to catch up to and, if possible, to surpass the European developments. The Allies are looking to us to supply the machines and operators for the next year and to gain for them control of the aerial situation. It is one of the greatest tasks which America has had set before her but we are confident that she will be able to carry the program through successfully. From the thousands of technically trained minds in this country there will surely come some new idea which will put us in the lead. Mayhap Technology will have some part in its germination.

NEED MORE OFFICERS

Thirty Schools Ready to Train Merchant Marine Men

The government free navigation and marine engineering schools are creating new officers for the merchant marine service each day, but the demand is still ahead of the supply.

The United States shipping board, whose office is at the custom house, has placed a large number of young men in the service and is seeking new men for the course, which will eventually supply a sufficient number of trained officers for the great fleet of merchantmen now in process of building.

Applications from all sections of the country have been received by the director, Henry Howard, and the registrants are being assigned to the training stations along the Atlantic, Gulf and Pacific coasts and Great Lakes. There are 30 stations now in operation and additional schools are being established at convenient points for those who have had some sea experience and are anxious for the further training which will fit them for the grades of junior officers and engineers, to whom particularly attractive salaries are paid.

Among the latest appointees to sea service are: James E. R. Bennette, S. S. Perfection as third mate; Ralph W. Brown, SS Kroonland, as junior officer; A. P. DeVega, SS Kolin, as junior officer; William F. Driscoll, SS Bulgaria, as fourth officer; L. R. McHale, SS San Mateo, as third assistant engineer; Daniel Mullins, SS Communipaw, as third mate Ralph L. Edgar, SS Everett, as third mate; and Bert M. Crandall, SS Wittekind, as junior officer.

Edward Kenway '11, has just heard of his appointment to a first lieutenancy in the aviation section of the Signal Officers Reserve corps as supply officer.

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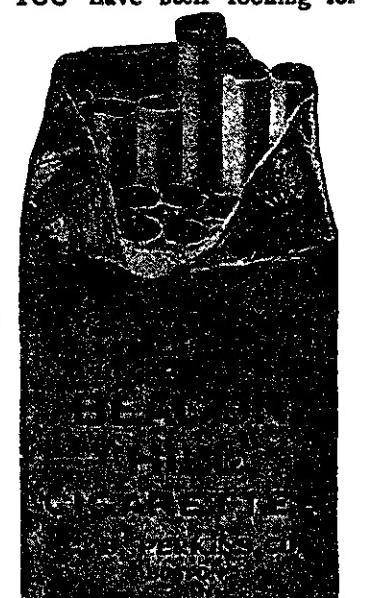
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**BIG TASK AHEAD OF ARMY
ENGINEERS ON FRENCH FIELDS**
Many Miles of Railroads and Sewage
Systems Needed

The value of railroad materials and rolling stock alone, now being purchased to provide in advance for the needs of the American Army is about five times that of all purchases made annually in this country for the Panama Canal during the last four or five years.

American engineers must undertake large operations in the construction and repair of bridges in France. They must repair and maintain the roads and highways over which our supplies will be brought up to the battle line. Much of the later work will be done within range of the enemy's guns. To accomplish this work the same kind of street and road equipment as is used in our leading American cities will have to be shipped to the front.

Will Equip French Terminals

Our engineers will equip the wharves and piers in France utilized by American forces, with the terminal facilities required by our armies. The lumber for this work will be cut from European forests by regiments of American foresters. This method will save burdening our ships with lumber from the United States. One regiment of foresters is being organized and several more will be raised. They will carry with them complete lumbermen's outfit, including sawmill equipment.

Experts will install electric plants which will furnish lights to the trenches, dugouts, storehouses, etc. The power houses will be "dug in" in such a way as to protect them from shell fire.

Will Furnish Water Supply

It is the duty of the Corps of Engineers to furnish an adequate water supply for the large bodies of men suddenly placed in localities where the entire water supply is already needed for the small civilian population. Our experts are already in France studying this problem. Well-driving apparatus,

Plenty Of Chance For Action Abroad



A field piece in action. The work which the Sophomores are getting at Camp Cunningham under Captain Bland, of the Canadian Army will qualify them to handle guns like the one shown above.

pipe, and all necessary supplies will be sent over. Settlements in which our troops will stay will be piped as is done under an American city system. Material for extensive standard-gauge and narrow-gauge railroads will be sent to Europe, to enable the Engineers to carry out their task. The lines to be built will both transport our troops to the front and handle all transportation behind the firing line. The lines running up to the front will remove wounded and salvage gathered from the field. Lines of this type are broad-gauge, feeding numerous narrow-gauge spurs which radiate from the main line and accommodate supply trains, often hauled by gasoline engines.

The Engineer Corps will carry its own rolling stock to the theater of

war. This in itself will be a gigantic operation.

Special mining companies will be formed for the purpose of carrying on the intricate operations involved in modern trench warfare. For this work expert miners will be chosen.

The engineers will go into the study of battle map making on a large scale. They will study this work under expert British and French instructors, who have made a specialty of the fields of battle since the war began. The present war has brought into being a vast number of appliances hitherto unknown. Battlefield illumination with searchlights, trench lights, flares, star bombs, and rifle grenades will be handled by our engineers. Appliances for this work will be of American manufacture.

Will Apply Camouflage

Camouflage, the modern war art of reducing the visibility of objects, must be applied for the protection of our troops, artillery, etc., in France and our engineers are making this subject their special study. Well-known artists and experts in color effects will precede the engineers and study out the problem of obscuring our operations from the enemy. The actual work will be done by sign painters and soldiers trained in the craft.

The engineers will attend to the construction of all buildings for the housing of troops. They will build hospitals, refrigerating plants, machine shops, and other structures incident to the care and supply of the army in France.

The purchasing and supply department of the Engineer Corps faces the task of buying the equipment that must be shipped to the front. The item of trenching tools is in itself a considerable one as the destruction in this one particular has been very large in the French and British armies. Wrecking cars and all the paraphernalia which goes with them must be supplied. Complete equipment for the making of concrete must also be provided.

The engineers must construct at harbors in the United States wharves, piers, and storehouses of sufficient capacity to handle all materials and supplies to be shipped to France. Every effort is being made to put through the work on hand without clogging the machinery. It will be the endeavor of the engineers to prepare accommodations ahead of troops as fast as they are sent over to the front, but they will not try to provide for our entire Army all at once.

AIRPLANES WILL BE DECIDING FACTOR IN EUROPEAN STRUGGLE

United States Must Supply Fliers To Win the War

Time has fully demonstrated the value of the air service in war, and experts say that many of the great decisive and effective battles of the future will be fought in the air.

This appears to be confirmed by the great activity of the Signal Corps and the passing unanimously by the House and Senate and the signing by the President without delay of the bill appropriating six hundred and forty million dollars for aeronautics.

25,000 Men Required

It has been said that the United States would require, to do its bit in the war, 25,000 masters of aeronautical apparatus—that is, men capable of flying the airplane and hydroairplane, and directing the movements of the "kite" or observation balloon, known as aviators or balloon pilots.

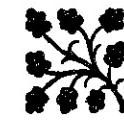
vice as a part of the general policy of consolidating on a war basis State troops, the selected army and the regulars into the Army of the United States.

Details of the plan are not ready for announcement, but it is already considered clear that a single reserve organization is the only practicable way to handle the problem presented by two arms of the service, the National Guard and the National Army—with State affiliations and "local pride," and the other arm—the Regular Army—without any common locality origin in its several units.

Saw It Coming.

A little girl of three was told that her birthday was coming soon. She did not quite understand what a birthday was, so she said: "Oh, auntie, some day I will go to the window and see my birthday coming down the street."

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Motion Picture Lab.	Quartermaster	\$1,200	_____	1599
Tent Inspector	Puget Sound Navy Yard	\$5.52 per day	_____	1600
Ordnance Foreman	Dept. Commerce	\$540	August 22	1597
Shop Apprentice	Ordnance	\$960-\$1,500	_____	1370
Asst. Insp. Cloth Equipment	Ordnance	\$1,200-\$1,500	_____	1370
Asst. Insp. Leather	Ordnance	\$960-\$1,500	_____	1370
Asst. Insp. Small Hardware	Ordnance	\$960-\$1,500	_____	1370
Asst. Insp. Textiles	Ordnance	\$960-\$1,500	_____	1370
Asst. Insp. Leather Equipment	Ordnance	\$1,200-\$1,500	_____	1370
Asst. Metallurgical Chemist	Ordnance	\$1,000-\$1,500	_____	1617
Production Expert	Signal	\$1,500	August 21	1682
Scientific Asst. Drug-	Dept. Agriculture	\$1,200	August 22	1621
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ALUMNI NOTES

WASHINGTON CORRESPONDENCE.

By Maurice R. Schaff

Executive Secretary, Technology Clubs
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PERSONALS

Charles Joseph Emerson, '04, who has been appointed Dean of the Army Aviation School at the Institute, has just started to make a trip of inspection and study of the other Aviation Schools located at different colleges throughout the country. He called at this office while he was on a trip to Washington to interview Major Birmingham, who is in charge of the organization of these schools.

Mr. M. P. Potter, '00, called, seeking information in regard to the construction of the new government cantonments and warehouses. With him was Mr. W. P. Brown, a graduate of Sheffield, who is also interested in this same matter.

"Moose" Jewett, who has been in the C. A. C. training camp at Fort Monroe, has been honorably discharged because of physical disability. Among the other callers at the Washington office this week were F. M. Swanton, '90, and Lester Gardner, '98.

Sidney F. Smith (Annapolis Naval Academy and M. I. T. '86) was recently appointed a principal examiner in the Patent Office and chairman of the new special committee on war inventions. He is also one of the organizers of the National Capitol Volunteer Guard, a company which is now in training as infantry, but is intended to be developed into an anti-aircraft gun company for local service in the defense of the city of Washington.

A committee on war inventions has recently been appointed by Commissioner of Patents Ewing, composed of an examiner-in-chief and principal examiners in the patent office, most of whom are graduates of Annapolis Naval Academy, and including Frank C. Skinner '77, and Sidney F. Smith '86, the latter being the chairman of the committee. To this committee are referred for examination and report as to their possible usefulness to the government for the conduct of the war all suggestion submitted by descriptions and sketches. They also consider all applications for patents filed in the patent office that might be of use to the government, and act on suggestions of any kind which may be sent directly to the committee. A great number of such ideas are constantly being examined by the committee, and an excellent opportunity is thus afforded for anyone with an apparently useful idea for the solution of war problems to obtain consideration, advice and cooperation under the same conditions of secrecy as obtain in patent examinations, but without the expense of actually filing a patent application.

Communications of this character should be addressed to the Primary Examiners' Advisory Committee, care of The Commissioner of Patents, U. S. Patent Office.

The personnel of the Signal Corps and especially the Aviation Section since the beginning of the war has been augmented by the addition of many men from great business and engineering organizations and many other walks of life. They dropped out of their daily pursuits suddenly and quickly—but they are now colonels, majors, captains and lieutenants, all in the uniform of the United States Army, working hard on Uncle Sam's aviation problems.

Conspicuous among them is Henry Souther '87, Vice-President and General Manager of the Ferro Machine & Foundry Co., who has received his ma-

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jor's commission and is in charge of the aircraft engineering division of the Signal Corps.

U. OF WASHINGTON STARTS ON "FOUR TERMS A YEAR" SCHEDULE SEATTLE, Wash., Aug. 6.—The College of Forestry of the University of Washington, one of the earliest of the forestry schools in the West, has been forced by the war emergency to entirely change its scholastic plan. The

calendar for the coming year just issued, announces that all registrations have been postponed in this college until Oct. 1, and that the university has elected for the period of the war to substitute the four-quarter plan for the college year instead of the usual semester plan. Changes in graduation requirements and courses accompanying this change, will mean a radical speeding up of this part of the university course.

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